

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/570,010 _____
Source: _____ ^{1FWP} _____
Date Processed by STIC: 3/8/06 _____

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/570,010

CRF Edit Date: 3/13/06
Edited by: W

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: invalid beginning/end-of-file text ; page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other:



IFWP

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/570,010

TIME: 14:52:09

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03132006\J570010.raw

3 <110> APPLICANT: Minerva Biotechnologies Corporation
 4 BAMDAD, Cynthia, C.
 6 <120> TITLE OF INVENTION: Techniques and Compositions for the Diagnosis and Treatment
 of
 7 Cancer (MUC1)
 9 <130> FILE REFERENCE: 13150-70089US
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/570,010
 C--> 11 <141> CURRENT FILING DATE: 2006-02-27
 11 <150> PRIOR APPLICATION NUMBER: PCT/US2004/027954
 12 <151> PRIOR FILING DATE: 2004-08-26
 14 <150> PRIOR APPLICATION NUMBER: US 60/498,260
 15 <151> PRIOR FILING DATE: 2003-08-26
 17 <160> NUMBER OF SEQ ID NOS: 66
 19 <170> SOFTWARE: PatentIn version 3.3
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 39
 23 <212> TYPE: PRT
 24 <213> ORGANISM: Artificial Sequence
 26 <220> FEATURE:
 28 <223> OTHER INFORMATION: Synthetic Peptide
 30 <400> SEQUENCE: 1
 32 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys
 33 1 5 10 15
 35 Thr Glu Ala Ala Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val
 36 20 25 30
 38 Ser His His His His His His
 39 35
 42 <210> SEQ ID NO: 2
 43 <211> LENGTH: 51
 44 <212> TYPE: PRT
 45 <213> ORGANISM: Artificial Sequence
 47 <220> FEATURE:
 49 <223> OTHER INFORMATION: Synthetic Peptide
 51 <400> SEQUENCE: 2
 53 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys
 54 1 5 10 15
 56 Thr Glu Ala Ala Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val
 57 20 25 30
 59 Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala His His His
 60 35 40 45
 63 His His His
 64 50
 67 <210> SEQ ID NO: 3
 68 <211> LENGTH: 54

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/570,010

TIME: 14:52:09

Input Set : A:\PTO.AMC.txt

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69 <212> TYPE: PRT
70 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
74 <223> OTHER INFORMATION: Synthetic Peptide
76 <400> SEQUENCE: 3
78 Val Gln Leu Thr Leu Ala Phe Arg Glu Gly Thr Ile Asn Val His Asp
79 1          5          10          15
81 Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala Ser Pro Tyr
82          20          25          30
84 Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val Pro Phe Pro Phe
85          35          40          45
87 His His His His His His
88          50
91 <210> SEQ ID NO: 4
92 <211> LENGTH: 31
93 <212> TYPE: PRT
94 <213> ORGANISM: Artificial Sequence
96 <220> FEATURE:
98 <223> OTHER INFORMATION: Synthetic Peptide
100 <400> SEQUENCE: 4
102 His His His His His His Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe
103 1          5          10          15
105 Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg Glu
106          20          25          30
109 <210> SEQ ID NO: 5
110 <211> LENGTH: 46
111 <212> TYPE: PRT
112 <213> ORGANISM: Artificial Sequence
114 <220> FEATURE:
116 <223> OTHER INFORMATION: Synthetic Peptide
118 <400> SEQUENCE: 5
120 Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly
121 1          5          10          15
124 Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro
125          20          25          30
127 Pro Ala His Gly Val Thr Ser Ala His His His His His His
128          35          40          45
131 <210> SEQ ID NO: 6
132 <211> LENGTH: 33
133 <212> TYPE: PRT
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
138 <223> OTHER INFORMATION: Synthetic Peptide
140 <400> SEQUENCE: 6
142 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys
143 1          5          10          15
145 Thr Glu Ala Ala Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val
146          20          25          30
148 Ser

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PATENT APPLICATION: US/10/570,010

TIME: 14:52:09

Input Set : A:\PTO.AMC.txt

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152 <210> SEQ ID NO: 7
153 <211> LENGTH: 45
154 <212> TYPE: PRT
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157 <220> FEATURE:
159 <223> OTHER INFORMATION: Synthetic Peptide
161 <400> SEQUENCE: 7
163 Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys
164 1          5          10          15
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167          20          25          30
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170          35          40          45
173 <210> SEQ ID NO: 8
174 <211> LENGTH: 25
175 <212> TYPE: PRT
176 <213> ORGANISM: Homo sapiens
178 <400> SEQUENCE: 8
180 Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe Arg Pro Gly Ser Val Val
181 1          5          10          15
183 Val Gln Leu Thr Leu Ala Phe Arg Glu
184          20          25
186 <210> SEQ ID NO: 9
187 <211> LENGTH: 40
188 <212> TYPE: PRT
189 <213> ORGANISM: Homo sapiens
191 <400> SEQUENCE: 9
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194 1          5          10          15
196 Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro
197          20          25          30
199 Pro Ala His Gly Val Thr Ser Ala
200          35          40
203 <210> SEQ ID NO: 10
204 <211> LENGTH: 1255
205 <212> TYPE: PRT
206 <213> ORGANISM: Homo sapiens
208 <400> SEQUENCE: 10
210 Met Thr Pro Gly Thr Gln Ser Pro Phe Phe Leu Leu Leu Leu Leu Thr
211 1          5          10          15
213 Val Leu Thr Val Val Thr Gly Ser Gly His Ala Ser Ser Thr Pro Gly
214          20          25          30
216 Gly Glu Lys Glu Thr Ser Ala Thr Gln Arg Ser Ser Val Pro Ser Ser
217          35          40          45
219 Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
220          50          55          60
222 Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
223 65          70          75          80
225 Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln

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DATE: 03/13/2006

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Input Set : A:\PTO.AMC.txt

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226				85				90				95				
228	Asp	Val	Thr	Ser	Val	Pro	Val	Thr	Arg	Pro	Ala	Leu	Gly	Ser	Thr	Thr
229				100				105					110			
231	Pro	Pro	Ala	His	Asp	Val	Thr	Ser	Ala	Pro	Asp	Asn	Lys	Pro	Ala	Pro
232			115				120					125				
234	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
235		130					135				140					
237	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
238	145					150					155				160	
240	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
241				165				170					175			
243	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
244				180				185					190			
246	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
247			195				200					205				
249	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
250		210					215					220				
252	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
253	225					230					235				240	
255	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
256				245				250					255			
258	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
259			260				265						270			
261	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
262			275				280					285				
264	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
265		290					295				300					
267	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
268	305					310					315				320	
270	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
271				325				330					335			
273	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
274			340				345						350			
276	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
277			355				360					365				
279	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
280		370					375					380				
282	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
283	385					390					395				400	
285	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His
286				405				410					415			
288	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala
289			420				425						430			
291	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr	Arg	Pro	Ala	Pro
292			435				440					445				
294	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser	Ala	Pro	Asp	Thr
295		450					455					460				
297	Arg	Pro	Ala	Pro	Gly	Ser	Thr	Ala	Pro	Pro	Ala	His	Gly	Val	Thr	Ser
298	465					470					475				480	

RAW SEQUENCE LISTING

DATE: 03/13/2006

PATENT APPLICATION: US/10/570,010

TIME: 14:52:09

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03132006\J570010.raw

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300 Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
301          485          490          495
303 Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
304          500          505          510
307 Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
308          515          520          525
310 Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
311          530          535          540
313 Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
314 545          550          555          560
316 Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
317          565          570          575
319 Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
320          580          585          590
322 Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
323          595          600          605
325 Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
326          610          615          620
328 Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
329 625          630          635          640
331 Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
332          645          650          655
334 Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
335          660          665          670
337 Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
338          675          680          685
340 Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
341          690          695          700
343 Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
344 705          710          715          720
346 Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
347          725          730          735
349 Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
350          740          745          750
352 Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
353          755          760          765
355 Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
356          770          775          780
358 Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
359 785          790          795          800
361 Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His
362          805          810          815
364 Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
365          820          825          830
368 Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
369          835          840          845
371 Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
372          850          855          860
374 Arg Pro Ala Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/570,010

DATE: 03/13/2006
TIME: 14:52:10

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\03132006\J570010.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; Xaa Pos. 3
Seq#:20; Xaa Pos. 3,12
Seq#:22; Xaa Pos. 8
Seq#:26; Xaa Pos. 5
Seq#:28; Xaa Pos. 12
Seq#:30; Xaa Pos. 15

VERIFICATION SUMMARY

DATE: 03/13/2006

PATENT APPLICATION: US/10/570,010

TIME: 14:52:10

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03132006\J570010.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0

L:652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0

L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0

L:739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0

L:766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0

L:799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0

**Raw Sequence Listing before editing
(for reference only)**



IFWP

RAW SEQUENCE LISTING

DATE: 03/08/2006

PATENT APPLICATION: US/10/570,010

TIME: 13:14:29

Input Set : A:\13150-70089US.ST25.txt

Output Set: N:\CRF4\03072006\J570010.raw

3 <110> APPLICANT: Minerva Biotechnologies Corporation
 4 BAMDAD, Cynthia, C.
 6 <120> TITLE OF INVENTION: Techniques and Compositions for the Diagnosis and Treatment
 of
 7 Cancer (MUC1)
 9 <130> FILE REFERENCE: 13150-70089US
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/570,010
 C--> 12 <141> CURRENT FILING DATE: 2006-02-27
 14 <150> PRIOR APPLICATION NUMBER: US 60/498,260
 15 <151> PRIOR FILING DATE: 2003-08-26
 17 <160> NUMBER OF SEQ ID NOS: 66
 19 <170> SOFTWARE: PatentIn version 3.3

**Does Not Comply
 Corrected Diskette Needed**

ERRORED SEQUENCES

1899 <210> SEQ ID NO: 66
 1900 <211> LENGTH: 57
 1901 <212> TYPE: PRT
 1902 <213> ORGANISM: Homo sapiens
 1904 <400> SEQUENCE: 66
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 1909 Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr Glu Ala Ala
 1910 20 25 30
 1912 Ser Pro Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser Asp Val Pro
 1913 35 40 45
 1915 Phe Pro Phe Ser Ala Gln Ser Gly Ala
 1916 50 55
 E--> 1917 3
 E--> 1920 - 1 -
 1925 821112.1

VERIFICATION SUMMARY

DATE: 03/08/2006

PATENT APPLICATION: US/10/570,010

TIME: 13:14:30

Input Set : A:\13150-70089US.ST25.txt

Output Set: N:\CRF4\03072006\J570010.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1917 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:66
M:332 Repeated in SeqNo=66